

## Title (en)

TISSUE PRODUCTS HAVING A HIGH DEGREE OF CROSS MACHINE DIRECTION STRETCH

## Title (de)

TISSUEPRODUKTE MIT HOHEM QUERRICHTUNGSDEHNUNGSGRAD

## Title (fr)

PRODUITS DE PAPIER SANITAIRE ET DOMESTIQUE PRÉSENTANT UN DEGRÉ ÉLEVÉ D'ALLONGEMENT DANS LE SENS TRAVERS

## Publication

**EP 2758598 A4 20150520 (EN)**

## Application

**EP 12832817 A 20120809**

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## Abstract (en)

[origin: US2013068867A1] The present invention provides tissue products having increased CD stretch, which may be manufactured using a process in which the nascent web is subjected to two distinct rush transfers. The first rush transfer occurs when the web is transferred from the forming fabric to the transfer fabric, i.e., the first position, and the second occurs when the web is transferred from the transfer fabric to the through-air drying fabric (TAD) fabric, i.e., the second position. The overall speed differential between the forming fabric and the TAD fabric may be, for example, from about 10 to about 50 percent, with the amount of rush transfer being divided between the first and second position in a manner sufficient to achieve the desired CD stretch and other sheet properties.

## IPC 8 full level

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## Citation (search report)

- [XII] US 2005136222 A1 20050623 - HADA FRANK S [US], et al
- [XII] US 2005236122 A1 20051027 - MULLALLY CRISTINA A [US], et al
- [X] US 2005145352 A1 20050707 - HERMANS MICHAEL A [US], et al
- [XII] WO 0008253 A1 20000217 - KIMBERLY CLARK CO [US]
- [XII] US 2004140076 A1 20040722 - HERMANS MICHAEL ALAN [US], et al
- See references of WO 2013041988A2

## Designated contracting state (EPC)

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## DOCDB simple family (application)

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